Occupational Health Indicators: Montana 2004-2014

Julia M. Brennan Epidemiologist





Disclaimer



• This report was prepared by the Montana Occupational Health and Safety Surveillance Program (MOHSS) in the Montana Department of Labor and Industry. This work was funded by Grant Number 5U60OH010802 from the National Institute for Occupational Safety and Health of the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC/NIOSH.



Montana Occupational Health and Safety Surveillance Program (MOHSS)

- Occupational health surveillance: identify, track, and monitor work-related injuries and illnesses and their causes, in order to identify and remediate unsafe workplace activities, hazards, and exposures.
- MOHSS: Bridge the gap between occupational health surveillance and prevention and safety activities in Montana. Monitor the occupational health landscape.
 - Funded by NIOSH/CDC (5 year grant)



Occupational Health Indicators (OHIs)

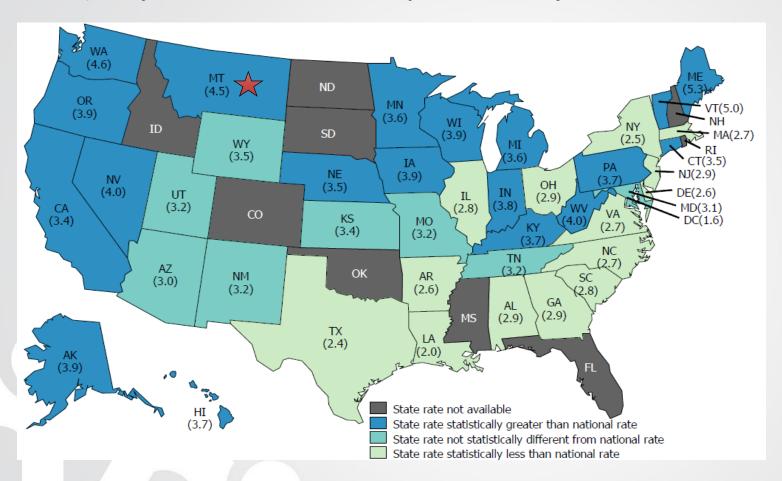
- Indicator 1: Non-Fatal Work-Related Injuries and Illnesses
- Indicator 2: Work-Related Hospitalizations
- **Indicator 3: Fatal Work-Related Injuries**
- Indicator 4: Work-Related Amputations with Days Away From Work
- Indicator 5: Workers' Compensation Claims for Amputations with Lost Work-Time
- Indicator 6: Hospitalizations for Work-Related Burns
- Indicator 7: Work-Related Musculoskeletal Disorders with Days Away From Work
- Indicator 8: Workers' Compensation Claims for Carpal Tunnel Syndrome with Lost Work-Time
- Indicator 9: Hospitalizations from or with Pneumoconiosis
- Indicator 10: Mortality from or with Pneumoconiosis
- Indicator 11: Acute Work-Related Pesticide-Associated Illness and Injury Reported to Poison Control
- Indicator 12: Incidence of Malignant Mesothelioma, ages 15 and older
- Indicator 13: Elevated Blood Lead Levels (BLL) Among Adults
- Indicator 14: Percentage of Workers Employed in Industries at High Risk for Occupational Morbidity
- Indicator 15: Percentage of Workers Employed in Occupations at High Risk for Occupational Mortality
- Indicator 16: Percentage of Workers Employed in Industries and Occupations at High Risk for **Occupational Mortality**
- Indicator 17: Occupational Safety and Health Professionals
- Indicator 18: OSHA Enforcement Activities
- Indicator 19: Workers' Compensation Awards
- Indicator 20: Work-Related Low Back Disorder Hospitalizations
- Indicator 21: Asthma Among Adults Caused or Made Worse by Work
- Indicator 22: Work-Related Severe Traumatic Injury Hospitalizations
- Indicator 22: Work-Related Severe Tradification Indicator 23: Influenza Vaccination Coverage Among Healthcare Personne Montana Department of LABOR & INDUSTRY

Lions, Tigers, Incidence Rates...Oh My!

- Two main types of rates in epidemiology:
 - Prevalence old + new cases ("snapshot")
 - Incidence new cases
- Incidence rate:
 - # <u>new</u> cases of an outcome / population at risk for the outcome, during a specific period of time
- Incidence rate must <u>always include description of</u> the <u>outcome</u> that it represents
 - Incidence rate of non-fatal work-related injuries and illnesses per 100 full-time employees (FTE), per year



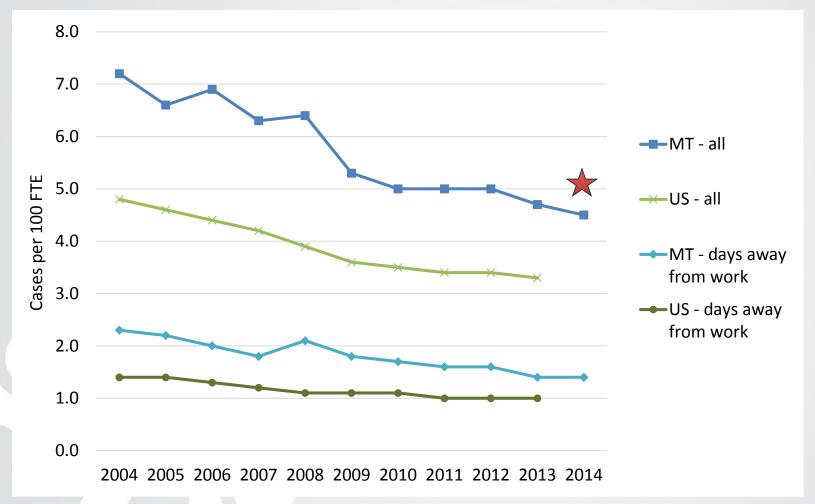
OHI #1: State non-fatal occupational injury and illness incidence rates (per 100 FTE) compared to the national rate, private industry, 2014.



Source: Chart from the Survey of Occupational Injuries and Illnesses Summary Estimates Charts Package, BLS



OHI #1 – Estimated incidence rates (per 100 FTE) of all non-fatal work-related injuries and illnesses, and cases with days away from work, in Montana and U.S., 2004-2014.



Source: BLS Survey of Occupational Injuries and Illnesses (SOII)



OHI #1: Non-fatal work-related injuries and illnesses, 2014

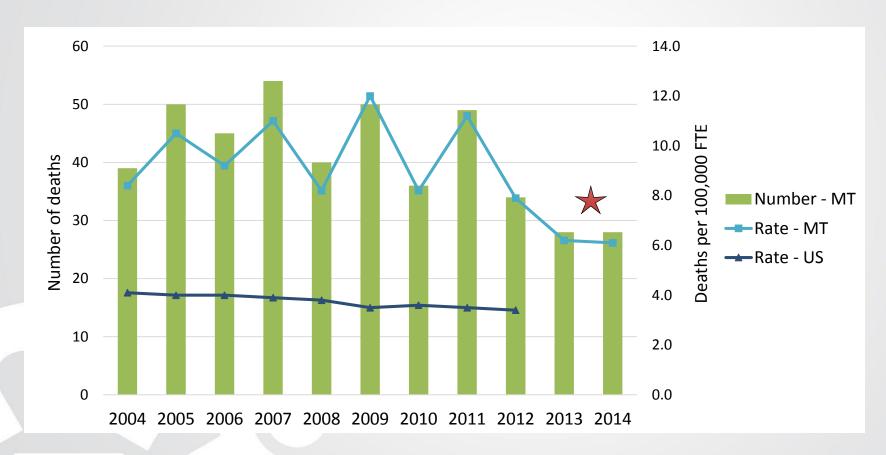
- By Industry (rates per 100 FTE)
 - Agriculture, forestry, fishing, hunting (8.8)
 - Manufacturing (6.4)
 - Education and health services (6.2)
 - Accommodation and food services (5.3)
 - Construction (5.3)

- By Occupation (counts)
 - Nursing assistants (220)
 - Retail salespersons (210)
 - Heavy & tractor trailer truck drivers (210)
 - Construction laborers (160)



OHI #3: Work-related fatalities

Figure 3.1 – Number and incidence rate (per 100,000 FTE) of fatal work-related injuries in Montana and U.S.

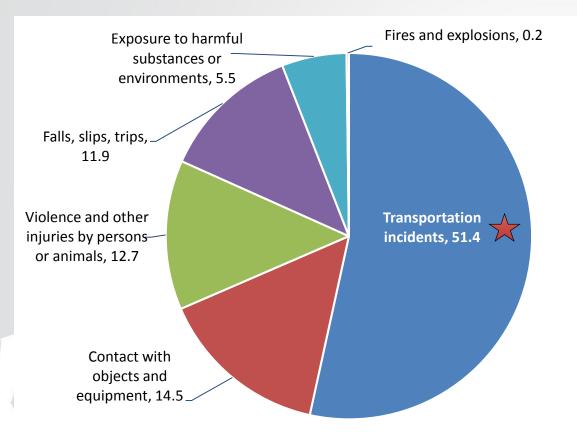


Source: BLS Survey of Occupational Injuries and Illnesses (SOII) (private industry)



OHI #3: Work-related fatalities

Figure 3.2 – Percentage of fatal work-related injuries by event or exposure, 2004-2014.



Fatalities by Industry (2004-14)

- Agriculture, forestry, fishing, and hunting (33.6%)
- Trade, transportation, and utilities (20.2%)
- **Construction** (12.3%)

Source: BLS Census of Fatal Occupational Injuries (CFOI). Counts included if met CFOI publication criteria.



Drive Safely Work Week 2016





YOUR DECISIONS DRIVE YOUR SAFETY.

www.trafficsafety.org





DRIVER BEHAVIOR CONTRIBUTES TO 94% OF ALL CRASHES.



YOUR DECISIONS DRIVE YOUR SAFETY.

www.trafficsafety.org

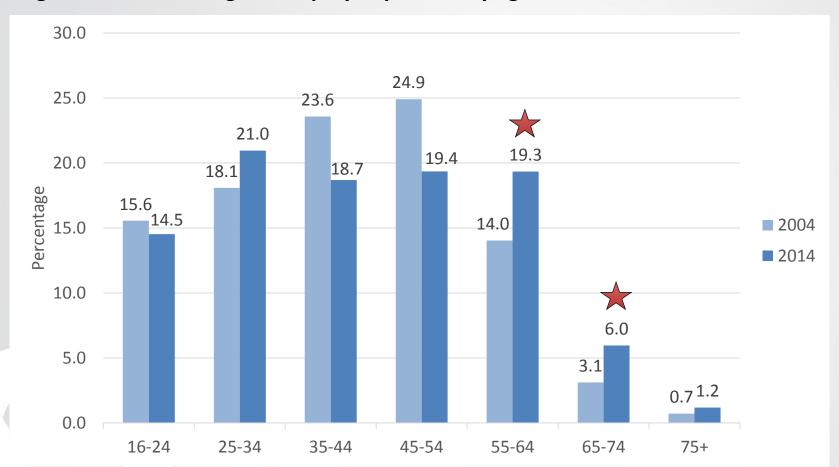






Aging Workforce in Montana

Figure P.7 – Percentage of employed persons by age in Montana, 2004 and 2014

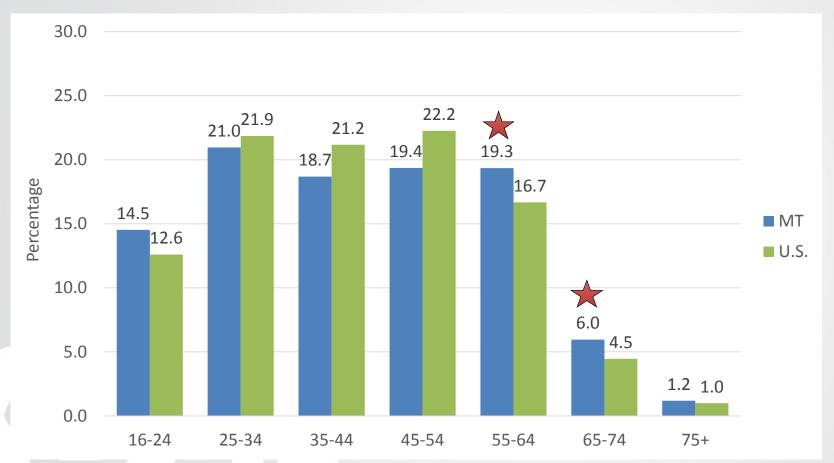


Source: BLS Geographic Profiles of Employment and Unemployment



Aging Workforce in Montana

Figure P.8 – Percentage of employed persons by age in Montana and U.S., 2014

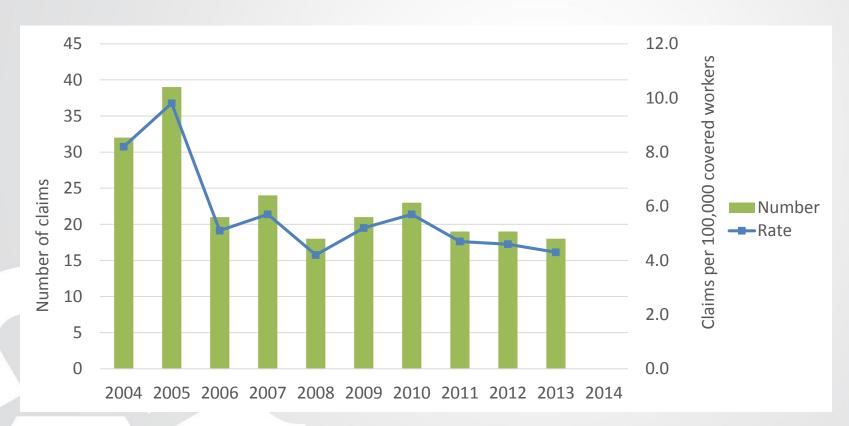


Source: BLS Geographic Profiles of Employment and Unemployment



OHI #5: Amputations Identified in Workers' Compensation System

Figure 5.1: Number and incidence rate of amputations with lost work-time filed with workers' compensation in Montana, 2004-2013

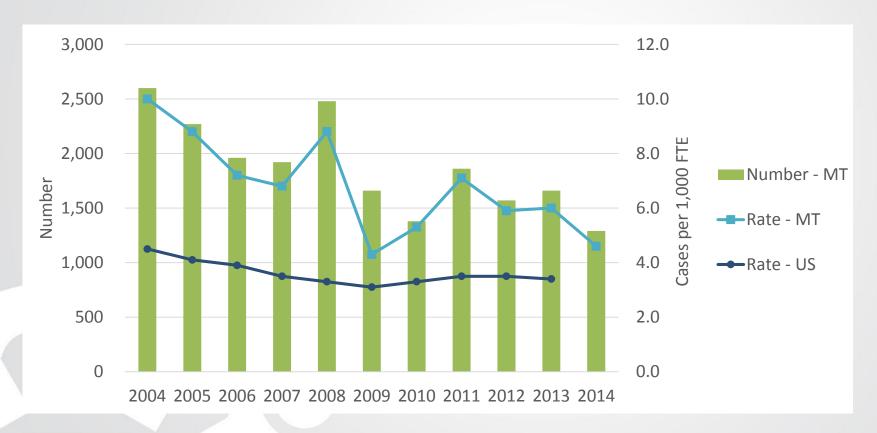


Source: Montana Workers' Compensation Network (WCAN), National Academy of Social Insurance (NASI). 2014 data is not yet available.



OHI #7: Work-related Musculoskeletal Disorders with Days Away From Work

Figure 7.1 – Number and incidence rate (per 1,000 FTE) of all MSD cases involving days away from work in Montana and the U.S., 2004-2014

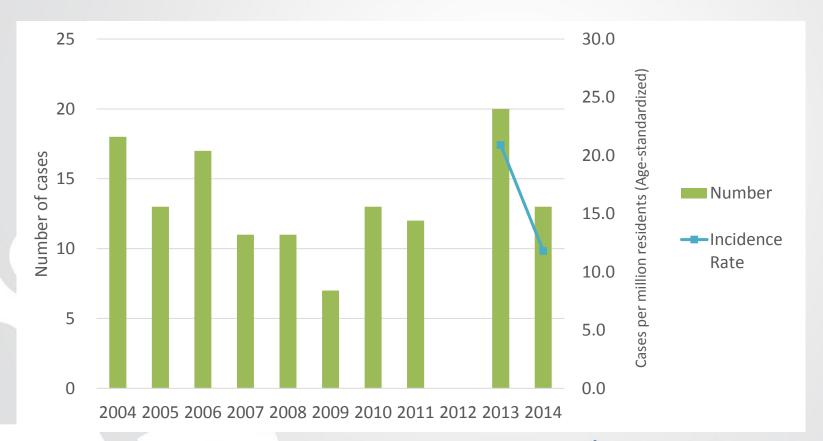


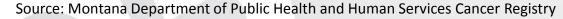
Source: BLS Survey of Occupational Injuries and Illnesses (SOII)



OHI #12: Incidence of Malignant Mesothelioma

Figure 12.1 – Number and age-standardized incidence rate (per million residents) of malignant mesothelioma in Montana, 2004-2014







OHI #12: Incidence of Malignant Mesothelioma

- 125 cases of mesothelioma diagnosed 2005-2014
 - Mean age at diagnosis = 72 years old
 - 4.8% of cases diagnosed at less than 50 years of age.
 - Males = 71.2% of the mesothelioma cases
- From 1979 to 2002, the counties with the highest number of mesothelioma cases:
 - Cascade (28)
 - Yellowstone (23)
 - Flathead (16)
 - Missoula (16)
 - Lincoln (12)



OHI #14: Workers at High Risk for Injury & Illness, 2014

- 5.7% of MT workforce employed in "high-risk industries"
- High-risk industries with the most workers:
 - Nursing care facilities
 - Retirement communities/assisted living facilities
 - Couriers and express delivery services
 - Veterinary services
 - Skiing facilities

- 18.1% of MT workforce employed in "high risk occupations"
- High-risk occupations with the most workers:
 - Driver/sales workers and truck drivers
 - Freight, stock, and material movers (hand)
 - Construction laborers
 - Nursing/psychiatric/home health aides
 - Janitors and building cleaners



OHI #16: Workers at High Risk for Occupational Fatality

- 2013 25.1% of employed workers worked in industries with high risk of occupational mortality
 - National percentage = 15.4%
- 2013 19.1% of employed workers worked in occupations with high risk of occupational mortality
 - National percentage = 12.5%











Collaboration is key!





Thank you!

Julia M. Brennan

Epidemiologist

JBRENNAN@MT.GOV

(406) 444 - 1722



